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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,606	02/20/2004	Robert L. Heimann	EL021RH-2	1566

7590 11/29/2005  
ORSCHELN MANAGEMENT CO  
2000 US HWY 63 SOUTH  
MOBERLY, MO 65270

EXAMINER
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LAVILLA, MICHAEL E

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,606

Applicant(s)

HEIMANN ET AL.

Examiner

Michael La Villa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,5,7,8,10,12-16 and 18-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1, 2, 4, 5, 7, 8, 10, 12-16, and 18-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 13 is objected to because of the following informalities: Regarding Claim 13, it is unclear what is meant by the phrase "subsequent to said drying rinsing." This product-by-process limitation is awkwardly included as a compositional limitation of the medium. The product-by-process limitation should be grammatically set apart. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
3. A person shall be entitled to a patent unless –
4. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
5. Claims 1, 2, 4, 5, 8, 10, 13, 14, 16, 18, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimmerman USPN 3,340,161.  
Zimmerman teaches coating an aluminum substrate with a silica layer and a silicone coating. See Zimmerman (col. 2, line 46 through col. 3, line 4; and col. 4, lines 3-33). The silica forming solution contains other ingredient which would be expected to be inherently retained in the final coating.
6. Claims 1, 2, 4, 5, 7, 8, 10, 12-16, 18, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kushida et al. USPN 5,091,224 for the reasons of record in the Office Action mailed on 16 June 2004.

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7. Claims 1, 2, 4, 5, 7, 8, 10, 12-16, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Osman et al. WO 00/06808. Osman teaches coating a steel plate with a silica containing layer and an epoxy paint layer, wherein the silica layer contains molybdenum, cobalt, and zinc. See Osman (page 3, line 3 through page 4, line 16; page 10, lines 5-31). With respect to Claim 19, the interface between the steel and Zn layer can be identified with the claimed zinc substrate. Osman teaches very good ASTM B117 performance, far in excess of 72 hours.

***Response to Amendment***

- I. In view of applicant's arguments, applicant traverses the "incorporation-by-reference" objection to the Specification of the Office Action mailed on 16 June 2005. Objection is withdrawn. Applicant's update to the status of related applications at page 4 of the Specification obviates the relevant objection to the Specification of the Office Action mailed on 16 June 2005.
- II. In view of applicant's arguments and amendments, applicant traverses the new matter rejection of the Office Action mailed on 16 June 2005. Rejection is withdrawn.
- III. In view of applicant's arguments and amendments, applicant has traversed the section 112, second paragraph rejections of the Office Action mailed on 16 June 2005. Rejections are withdrawn.

- IV. In view of applicant's arguments and amendments, applicant has traversed the section 102 rejections over Petrole, Purnell, Sabata, and von Ooij of the Office Action mailed on 16 June 2005. Rejections are withdrawn.
- V. In view of applicant's arguments and amendments, applicant has traversed the section 102 rejection over Kushida of the Office Action mailed on 16 June 2005. Kushida teaches a medium comprising colloidal silica, in addition to sodium silicate. It would be expected that the resulting coating would comprise silica, due to its excess presence in the medium.

***Conclusion***


- 8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- 9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael La Villa  
28 November 2005

  
MICHAEL E. LAVILLA PH.D.  
PRIMARY EXAMINER